Lvaluation



Report

OFFICE OF THE INSPECTOR GENERAL

TACTICAL CONTINGENCY COMMUNICATIONS **EQUIPMENT - CENTRAL AREA**

Report No. 98-061

February 4, 1998

DEPARTMENT OF DEFENSE

DIIC QUALITY INSPECTED 4

19990927 011

ABIE9-12- 2426

INTERNET DOCUMENT INFORMATION FORM

- A . Report Title: Tactical Contingency Communications Equipment-Central Area
- B. DATE Report Downloaded From the Internet: 09/24/99
- C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):

 OAIG-AUD (ATTN: AFTS Audit Suggestions)
 Inspector General, Department of Defense
 400 Army Navy Drive (Room 801)
 Arlington, VA 22202-2884
- D. Currently Applicable Classification Level: Unclassified
- E. Distribution Statement A: Approved for Public Release
- F. The foregoing information was compiled and provided by: DTIC-OCA, Initials: __VM__ Preparation Date 09/24/99

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.

Additional Copies

To obtain additional copies of this evaluation report, contact the Secondary Reports Distribution Unit of the Analysis, Planning, and Technical Support Directorate at (703) 604-8937 (DSN 664-8937) or FAX (703) 604-8932.

Suggestions for Future Evaluations

To suggest ideas for or to request future evaluations, contact the Planning and Coordination Branch of the Analysis, Planning, and Technical Support Directorate at (703) 604-8908 (DSN 664-8908) or FAX (703) 604-8932. Ideas and requests can also be mailed to:

OAIG-AUD (ATTN: APTS Audit Suggestions) Inspector General, Department of Defense 400 Army Navy Drive (Room 801) Arlington, Virginia 22202-2884

Defense Hotline

To report fraud, waste, or abuse, contact the Defense Hotline by calling (800) 424-9098; by sending an electronic message to Hotline@DODIG.OSD.MIL; or by writing to the Defense Hotline, The Pentagon, Washington, D.C. 20301-1900. The identity of each writer and caller is fully protected.

Acronyms

ANG Air National Guard
AOR Area of Responsibility
CENTCOM U. S. Central Command

CINCUSCENTCOM Commander in Chief, U. S. Central Command

CJCS Chairman of the Joint Chiefs of Staff CCG Combat Communications Group

DCS-CA Defense Communications System - Central Area

SORTS Status of Resources and Training System

TCCE-CA Tactical Contingency Communications Equipment - Central Area



INSPECTOR GENERAL

DEPARTMENT OF DEFENSE 400 ARMY NAVY DRIVE ARLINGTON, VIRGINIA 22202-2884



February 4, 1998

MEMORANDUM FOR COMMANDER IN CHIEF, UNITED STATES CENTRAL COMMAND DIRECTOR, JOINT STAFF AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Evaluation Report on the Tactical Contingency Communications Equipment-Central Area (Report No. 98-061)

We are providing this report for review and comment.

We considered management comments on a draft of this report in preparing the final report. Recommendation C. remains unresolved and the U.S. Army Signal Command is requested to provide comments on this report that conform to the requirements of DoD Directive 7650.3. Management comments on the final report are requested by April 6, 1998.

We appreciate the courtesies extended to the evaluation staff. Questions on the evaluation should be directed to Captain A. L. Lawson, United States Navy, Evaluation Program Director, at (703) 604-9555 (DSN 664-9555) or Ms. Kathryn L. Palmer, Evaluation Project Manager, at (703) 604-8840 (DSN 664-8840). See Appendix C for the report distribution. The evaluation team members are listed inside the back cover.

David K. Steensma

David H. Steensma

Deputy Assistant Inspector General

for Auditing

Office of the Inspector General, DoD

Report No. 98-061 (Project No. 7RB-9036) **February 4, 1998**

Tactical Contingency Communications Equipment Central Area

Executive Summary

Introduction. The Tactical Contingency Communications Equipment - Central Area (TCCE-CA) is rapidly deployable tactical communications equipment operationally controlled by the Chairman of the Joint Chiefs of Staff. It is specifically designated to support the Commander in Chief, U. S. Central Command. The TCCE-CA equipment is maintained and operated by active Army units stationed at Fort Huachuca, Arizona, and an Air National Guard combat communications group stationed in Coventry, Rhode Island. The mission of the TCCE-CA is to provide United States Central Command a theater-wide tactical communication network to link combat units with theater headquarters and provide satellite links to the National Command Authorities.

Evaluation Objectives. The evaluation objective was to determine the effectiveness of the TCCE-CA in supporting the National Command Authorities, the Chairman of the Joint Chiefs of Staff, and the commanders in chief of the unified commands. In addition, we determined whether the TCCE-CA resources effectively accomplished the assigned tasks and supported the assigned mission. We also reviewed the management control program as it applies to the other evaluation objectives.

Evaluation Results. The TCCE-CA units were effectively accomplishing their mission. However, we noted that the following areas needed improvements in the oversight and management controls of TCCE-CA.

- There was no joint level readiness reporting of TCCE-CA assets. As a result, the readiness status of TCCE-CA, as a joint communications asset, was not being monitored (Finding A).
- An overarching modernization plan did not exist for the TCCE-CA. As a result, TCCE-CA units may not be optimally equipped to support the future communications needs of the Commander in Chief, United States Central Command (Finding B).
- Army TCCE-CA assets were being managed without formal Army guidance. As a result, there was no assurance that the Army would not use the TCCE-CA assets for Army specific missions at the expense of the joint mission (Finding C).

Management controls applicable to the TCCE-CA needed improvement because we identified material weaknesses in the areas of joint oversight of TCCE-CA readiness capability, requirements determination for TCCE-CA modernization, and documentation identifying the Army's TCCE-CA responsibilities. See Appendix A for details on the management control program.

Summary of Recommendations. We recommend establishing procedures requiring the submission of readiness reports to the Joint Staff and the Commander in Chief, U.S. Central Command. We also recommend the detailed development of a modernization plan containing guidance for developing programs and appropriations to support interoperable communications requirements. Finally, we recommend the development of derivative directives, instructions, or memoranda of understanding to manage assets.

Management Comments. The Joint Staff and the U.S. Central Command concurred with the recommendations. The U.S. Army Signal Command nonconcurred with the recommendation on managing assets and stated that it cannot afford to reserve assets for the use of a specific unified commander. The Department of the Army stated that the report did not completely assess the primary objective of the evaluation, and that the TCCE-CA concept is no longer relevant and the requirement for its existence should be revalidated. See Part I for a discussion of management comments and Part III for the complete text of management comments.

Evaluation Response. Comments from the Joint Staff and U.S. Central Command are responsive. The Army Signal Command comments are not responsive in that the issue of dedicating specific assets for singular control by a specific unified commander is not discussed in the report. We request that the Army Signal Command reconsider its position and provide comments on the final report by April 5, 1998. As for the Department of the Army comments, it is the responsibility of the Joint Staff, and not the Inspector General, DoD, to decide if the TCCE-CA concept is relevent and still required.

Table of Contents

Executive Summary	i				
Part I - Evaluation Results					
Evaluation Background Evaluation Objectives Finding A. Joint Command Level of Oversight Finding B. Modernization Planning Finding C. Army Tactical Contingency Communications Equipment- Central Area Guidance	2 4 5 9				
Part II - Additional Information					
Appendix A. Evaluation Process Scope and Methodology Management Control Program Summary of Prior Coverage Appendix B. Network of the Tactical Contingency Communications Equipment - Central Area Appendix C. Report Distribution	18 18 19 20 21				
Part III - Management Comments					
Joint Staff Comments U.S. Central Command Comments Department of the Army Comments U.S. Army Signal Command Comments	24 26 27 29				

Part I - Evaluation Results

Evaluation Background

Introduction. The Tactical Contingency Communications Equipment - Central Area (TCCE-CA) is rapidly deployable tactical communications equipment operationally controlled by the Chairman of the Joint Chiefs of Staff (CJCS). It is specifically designated to support the Commander in Chief, U. S. Central Command (CINCUSCENTCOM). Equipment allocated for TCCE-CA use includes message switches, message terminals, relay equipment, satellite terminals, technical control equipment, telephone terminals, tropospheric multichannel terminals, and voice switches. When the equipment is deployed to the U. S. Central Command (CENTCOM) area of responsibility (AOR), the Army and the Air Force provide operational and maintenance personnel to support the mission.

History of TCCE-CA. Between 1983 and 1985, CINCUSCENTCOM submitted to the CJCS a series of required operational capability documents establishing the requirement for permanently assigned communications assets in the CENTCOM AOR. In 1984, the CJCS established the Defense Communication System - Central Area (DCS-CA) to provide that capability and directed the Army and the Air Force to provide the required support. The Army designated units from the Army 11th Signal Brigade, Fort Huachuca, Arizona, as DCS-CA assets. The Air Force assigned the 281st Combat Communications Group (CCG), Rhode Island Air National Guard (ANG), Coventry, Rhode Island, the DCS-CA mission.

The DCS-CA mission was to establish three major and nine minor communications nodes in specific geographic sites within the CENTCOM AOR. However, establishing specific nodal sites was not feasible due to constantly changing threats and political considerations involving the host nations where the nodes were to be placed. As a result, the DCS-CA assets were maintained in the United States in a rapid deployment status under the operational control of the CJCS.

Use of DCS-CA in Operations Desert Shield and Desert Storm. During Operations Desert Shield and Desert Storm, the DCS-CA was not deployed. Due to deployment priorities, the 281st CCG was not mobilized; and only selected pieces of the DCS-CA equipment were utilized at locations within the United States. The Army DCS-CA assets were deployed for Army specific use at major logistics bases and ports. Since Operations Desert Shield and Desert Storm, one major node of equipment, operated by the Army 385th Signal Company, has been operational in the CENTCOM AOR in Kuwait.

Redesignation of DCS-CA as TCCE-CA. As a lesson learned from Operations Desert Shield and Desert Storm, the CENTCOM Director for

Command, Control, Communications, and Computers¹ determined that, if used as planned, the DCS-CA would have eased some of the communications difficulties encountered in the war. However, the CENTCOM J-6 also favored maintaining operational flexibility of the DCS-CA communications assets rather than placing them at specifically designated permanent sites. Also, because it was not feasible to obtain host nation agreement to permanently station the assets in the AOR, CINCUSCENTCOM opted to maintain the units in a rapidly deployable status in the United States. Accordingly, the CJCS redesignated the DCS-CA assets as the TCCE-CA in 1992. The mission remained unchanged with the exception of TCCE-CA assets becoming mobile tactical units that could be deployed where needed in any AOR, rather than being assigned to permanent predetermined sites in the CENTCOM AOR.

Current Mission of TCCE-CA. The mission of TCCE-CA is to provide three major and nine minor communications nodes in the CENTCOM AOR. Appendix B describes how the nodes link to form the CINCUSCENTCOM communications network. When the TCCE-CA assets are in a nondeployed status in the United States, they are part of the CJCS controlled tactical communications assets. If the CINCUSCENTCOM agrees, the CJCS may assign TCCE-CA assets to provide support to other unified commanders in chief.

Structure of TCCE-CA. The TCCE-CA assets are composed of elements of the 11th Signal Brigade, the 385th Signal Company, and the 281st CCG. The 11th Signal Brigade assigned the TCCE-CA mission to the 40th and the 86th Signal Battalions, both located at Fort Huachuca, Arizona. The 40th Signal Battalion provides equipment and support for one minor TCCE-CA node and the 86th Signal Battalion provides equipment for one major and three minor TCCE-CA nodes. Both units also have equipment to support Army-specific missions in addition to the equipment to support the TCCE-CA mission.

The 281st CCG is composed of four combat communications squadrons, three of which have the TCCE-CA mission as their sole Federal mission. The 282nd Combat Communications Squadron, Rhode Island ANG, Coventry, Rhode Island, provides equipment for one major and one minor node. In addition, the 283rd Combat Communications Squadron, Georgia ANG, Dobbins Air Force Base, Georgia, provides equipment for two minor nodes. Finally, the 263rd Combat Communications Squadron, North Carolina ANG, Badin, North Carolina, provides equipment for two minor nodes.

At both the Joint Staff and at CENTCOM, the office code for the Director for Command, Control, Communications, and Computers is "J-6," and is commonly referred to by that code. In this report, the Directors for Command, Control, Communications, and Computers at those two commands, and their staffs, will be referred to as the Joint Staff J-6 and the CENTCOM J-6, respectively.

Evaluation Objectives

The evaluation objective was to determine the effectiveness of the TCCE-CA in supporting the National Command Authorities, the CJCS, and the commanders in chief of the unified commands. In addition, we determined whether the TCCE-CA resources effectively accomplished the assigned tasks and supported the assigned mission. We also reviewed the management control program as it applies to the other evaluation objectives. See Appendix A for a discussion of the scope and methodology and a discussion of our review of the management control program.

Finding A. Joint Command Level of Oversight

There was no joint level readiness reporting of TCCE-CA assets. Non-reporting of TCCE-CA readiness occurred because Joint Staff guidance did not require readiness reporting of the TCCE-CA at the joint level. As a result, the readiness status of TCCE-CA, as a joint communications asset, was not being monitored.

Oversight Requirements

The CJCS Instruction 6110.01, "Joint Staff Controlled Tactical Communications Assets," January 25, 1996, governs the policy and use of TCCE-CA. The Instruction also specifies that Joint Staff-controlled communications assets be maintained in a high state of readiness to respond to no-notice and short-notice requirements.

The CJCS Instruction 3110.10, "Appendix to the JSCP (Joint Strategic Capabilities Plan) for Joint Staff Controlled Tactical Communications Equipment," December 22, 1995, assigns specific equipment responsibilities to units for Joint Staff-controlled communications equipment, including TCCE-CA.

The Joint Publication 1-03.3, "Status of Resources and Training System (SORTS)," August 10, 1993, governs the policies and procedures for readiness reporting by all military units.

Readiness Reporting for TCCE-CA

There was no joint level readiness reporting of TCCE-CA assets. The TCCE-CA units were not required to submit specific TCCE-CA readiness reports to the Joint Staff or any unified command staff. Both the 11th Signal Brigade and the 281st CCG report readiness status using standardized reports within the Army and the Air Force. Although the data in the reports were eventually reported to the Joint Staff through the SORTS, the data were not routinely forwarded to the unified or subordinate commanders. Further, the SORTS reports did not provide visibility for Army TCCE-CA assets, because the assets were part of the overall readiness statement of the 11th Signal Brigade.

Army Readiness Reporting for TCCE-CA. Because the Army 40th Signal Battalion and the 86th Signal Battalion support Service-specific missions as well as the TCCE-CA mission, its equipment and manning resources are greater than the minimum required for the TCCE-CA. As a result, the unit status reports from the 11th Signal Brigade indicated an overall readiness posture in which the TCCE-CA equipment and all other equipment were considered as a whole. Lacking a specific breakout of TCCE-CA equipment, the readiness status of the 40th and 86th Signal Battalions to support the TCCE-CA mission could not be extracted from the unit status reports. However, the 11th Signal Brigade submitted a monthly report to the Commander, U. S. Army Signal Command titled, "Monthly Joint Chiefs of Staff/Tactical Contingency Communications Equipment - Central Area Equipment Status Report," in which the material readiness of the TCCE-CA equipment was reported separately from the 11th Signal Brigade's overall readiness. There was no written requirement for the report and the information it contained was not routinely forwarded beyond the Army Signal Command headquarters.

Air Force Readiness Reporting for TCCE-CA. In the case of the 281st CCG, TCCE-CA support was the only Federal mission of the group headquarters unit and three of the four squadrons. The Air Force had equipped and manned the headquarters and the three squadrons strictly in accordance with that Federal mission. Therefore, the SORTS reports for the 281st CCG and its squadrons directly reflected the readiness of the 281st CCG to support the TCCE-CA mission.

Joint Staff Guidance. We attributed the lack of joint level readiness reporting of TCCE-CA assets to inadequate Joint Staff guidance. Neither of the CJCS instructions require reporting requirements for any Joint Staff-controlled communications equipment, including the TCCE-CA. Also, there was no written requirement from any unified or subordinate command for TCCE-CA units to provide equipment or personnel readiness reports outside the routine SORTS report.

Importance of TCCE-CA Readiness Reports

Unified commanders did not routinely receive SORTS readiness reports of the forces apportioned to them for contingencies. Generally, the Services were required to provide equipped, manned, and trained units to the unified commanders. When planning for contingencies, the unified commanders assumed the apportioned forces would arrive in theater in a ready status. The TCCE-CA assets were no exception. CINCUSCENTCOM was not provided TCCE-CA specific readiness reports. Because of the unique capabilities provided by the TCCE-CA units and the importance of those capabilities to the CINCUSCENTCOM, we believe that the CINCUSCENTCOM should not regard the TCCE-CA in the same manner as other apportioned forces, but rather

as a joint force concept. Also, we believe that the CINCUSCENTCOM must be informed of the readiness of TCCE-CA to perform the assigned mission.

TCCE-CA, a Joint Force Concept. The TCCE-CA should not be considered in the same manner as other apportioned combat forces. Although provided by the Army and the Air Force, TCCE-CA assets are Joint Staff-controlled communications assets for use in a joint concept rather than assets drawn together under the auspices of a separate joint command.²

CINCUSCENTCOM Awareness of TCCE-CA Readiness Status. Although the TCCE-CA was a critical capability in the CINCUSCENTCOM deliberate planning process for contingencies, CINCUSCENTCOM had no institutionalized visibility of the readiness status of those assets. In addition, neither the Army nor the Air Force was required to provide readiness reports to CINCUSCENTCOM. The CENTCOM J-6 expressed concern regarding the readiness of TCCE-CA units. Our review of the 11th Signal Brigade's report, to the Commander, U. S. Army Signal Command, "Monthly Joint Chiefs of Staff/Tactical Contingency Communications Equipment - Central Area Equipment Status Report," showed that the readiness of Army TCCE-CA units was appropriate to fulfill the mission. Additionally, our review of the 281st CCG SORTS reports showed that the readiness of Air Force TCCE-CA units was appropriate to fulfill the mission.

Conclusion

The TCCE-CA is a CJCS joint communications asset that had no oversight by any joint level command. Although the TCCE-CA units were maintained, manned, and operated by the Army and the Air Force, the assets were deployed as a joint asset rather than as a Service component asset. The Joint Staff should maintain an awareness of the TCCE-CA readiness status. Because CINCUSCENTCOM is the primary user of the TCCE-CA assets, we believe that it is appropriate for CINCUSCENTCOM to be provided a readiness status of TCCE-CA assets. Possible methods for reporting readiness status may be as amplifying information in unit SORTS reports or as a separate report. However, the Joint Staff J-6 may direct the method of reporting as deemed appropriate.

² The Joint Communication Support Element is an example of Joint Staff-controlled communications assets with a unified mission under a separate joint command. TCCE-CA has similar joint usage but does not have the concurrent joint designation.

³ Joint Publication 1-03.3, which governs the policies and procedures for submitting SORTS reports, allows commanders to submit remarks in the unit SORTS report in order to provide the senior commanders amplifying information on readiness issues. The Joint Staff and senior commanders may direct units to provide specific information in the SORTS remarks.

Recommendation, Management Comments, and Evaluation Response

A. We recommend that the Joint Staff Director for Command, Control, Communications, and Computer Systems establish procedures requiring the Army and the Air Force to submit routine status reports to the Joint Staff and the Commander in Chief, U.S. Central Command on the status of Army and Air Force assets assigned to the Tactical Contingency Communications Equipment-Central Area.

Joint Staff Comments. The Joint Staff concurred with the recommendation and indicated that it will initiate changes in appropriate publications to require direct reporting of TCCE-CA readiness, with an estimated completion date of November 1, 1998.

Army Signal Command Comments. The Army Signal Command stated that joint reports should be required only when the Service assets are operational and under joint control.

Evaluation Response. The Joint Staff comments are responsive. The Army Signal Command comments are noted. We agree that Service assets required to support a joint mission should be identified by the Service. However, when assets such as the TCCE-CA are identified to support a specific joint mission, and when they cannot be deployed for other missions without the concurrence of a specific unified commander, those assets are under joint control. Therefore, it is in the interest of the unified commander concerned to maintain awareness of the readiness status of those assets.

Finding B. Modernization Planning

An overarching modernization plan did not exist for TCCE-CA. A plan did not exist because neither the Joint Staff J-6 nor the CENTCOM J-6 had developed a detailed modernization plan that the Army and the Air Force could use to plan, program, and budget for equipment upgrades. As a result, TCCE-CA units may not be optimally equipped to support the future communications needs of CINCUSCENTCOM.

TCCE-CA Requirements Process

The Army and the Air Force equipped and manned the TCCE-CA units based on the CINCUSCENTCOM required operational capability documents, dating from 1981 through 1983. The specific equipment and the quantities that the Army and the Air Force provided for TCCE-CA is listed in an attachment to CJCS Instruction 3110.10. The planning, programming, and budgeting for TCCE-CA assets are performed within separate budgeting processes of the Army and the Air Force. As part of those budgeting processes, both the Army and the Air Force need capability requirements from the unified commanders to develop equipment modernization plans.

TCCE-CA Modernization Planning

An overarching modernization plan did not exist for TCCE-CA. The CJCS Instruction 3110.10 provides the overarching equipment requirements. However, the Joint Staff had not updated its specific equipment list in CJCS Instruction 3110.10. Further, CINCUSCENTCOM guidance was too generic to ensure commonality of equipment.

Joint Staff Guidance. The Joint Staff had not updated its specific equipment list in CJCS Instruction 3110.10. Although dated December 22, 1995, the CJCS Instruction 3110.10 reflected the allowances for TCCE-CA equipment based on the 1981 through 1983 required operational capability documents. Any update to the guidance is dependent on CINCUSCENTCOM required operational capability documents.

CINCUSCENTCOM Modernization Guidance. The CINCUSCENTCOM guidance was too generic to ensure commonality of equipment. CINCUSCENTCOM uses the following three documents to promulgate changes to TCCE-CA requirements beyond FY1998:

- CINCUSCENTCOM plan, "500 Day Plan For Improving USCENTCOM's C4 [command, control, communications, and computers] Warfighting Capability: September 1997 December 1998," August 1994;
- draft CINCUSCENTCOM document, "Communications Concept of Operations"; and
- draft CINCUSCENTCOM requirements statement, "Mission Needs Statement (MNS) 2-97 for Improved Data Transmission Capability for the Theater Contingency Communications Equipment-Central Area (TCCE-CA)."

Our review of the draft documents showed that, as written, the documents will not provide the Joint Staff with specific equipment requirements that could be used to update CJCS Instruction 3110.10 nor specific equipment requirements that could be used by the Army and the Air Force to plan and procure equipment for TCCE-CA modernization.

Modernization of Army and Air Force TCCE-CA Assets

Without specific joint guidance, the Army and the Air Force separately developed communication unit modernization plans. The modernization plans did not reflect any unique communications requirements for TCCE-CA.

Army Modernization Plans. The Army developed modernization plans for the units that were assigned the TCCE-CA mission using a broader communications modernization program that was designed for tactical theater signal battalions. By using such a program, the Army TCCE-CA units would be structured and equipped the same as every other Army signal battalion. The capabilities that CINCUSCENTCOM required in its 1981 through 1983 required operational capability documents would be a subset of the equipment in the modernized battalion. However, the capabilities would not match exactly the equipment requirements in CJCS Instruction 3110.10. The Army also planned to equip the battalions with enhanced capabilities, which, although not required by any current TCCE-CA documents, would provide greater capability within the nodes the Army operated.

Air Force Modernization Plans. The Air Force modernization plans for its tactical air base squadrons excluded the 281st CCG. The squadrons provided similar equipment suites to an Air Force tactical air base that the 281st CCG provided to CINCUSCENTCOM. Because the Air Force identified the 281st as a unique CCG that supported the CENTCOM TCCE-CA mission, the Air Force removed the 281st from its modernization program and did not plan to fund any changes to the 281st. The Air Staff did state that if CINCUSCENTCOM provided updated operational requirements for the TCCE-CA, then it would be willing to fund the new requirements and modernize the 281st CCG.

Commonality of Equipment

The TCCE-CA units may not be optimally equipped to support the future communications needs of CINCUSCENTCOM. Initially, TCCE-CA had common equipment, as required in the CJCS Instruction 3110.10. However, when the Army and the Air Force separately upgraded their equipment without oversight by the Joint Staff or CINCUSCENTCOM, there was no mechanism to ensure that specific joint operational needs and optimal equipment compatibility were met. The Army plan to upgrade all of its equipment, including equipment for the TCCE-CA; and the Air Force plan to upgrade its equipment, except for the TCCE-CA, could result in less than optimal communication capacity.

Recommendations, Management Comments, and Evaluation Response

- B.1. We recommend that the U.S. Central Command Director for Command, Control, Communications, and Computer Systems develop, in coordination with the Army and the Air Force, a detailed Tactical Contingency Communications Equipment-Central Area modernization plan and a means for periodic updates to the plan. The plan should be submitted to the Joint Staff Director for Command, Control, Communications and Computer Systems for review and concurrence.
- B.2. We recommend that the Joint Staff Director for Command, Control, Communications, and Computer Systems update the Chairman of the Joint Chiefs of Staff Instruction 3110.10 to incorporate the detailed Tactical Contingency Communications Equipment Central Area modernization plan.
- Joint Staff Comments. The Joint Staff concurred and indicated that CINCUSCENTCOM recently hosted a working group that planned, in part, TCCE-CA modernization. The Joint Staff also stated that CINCUSCENTCOM was drafting a mission needs statement addressing TCCE-CA modernization, with a due date of March 1, 1998.
- U.S. Central Command Comments. The CENTCOM J-6 concurred with Recommendation B.1. and stated it may be a U.S. Atlantic Command responsibility, with participation by the Joint Staff and CENTCOM. For Recommendation B.2., CENTCOM stated that the CJCS Instruction 3110.10 may not be the proper document to include detailed modernization plans.

Army Comments. The Department of the Army stated that equipment modernization is a Service responsibility and outlined the Army process for developing modernization plans. The Army stated that the CENTCOM

communication plan requires equipment and technology that do not satisfy Army requirements and thus, the Army is not pursuing those requirements in its modernization plan.

Army Signal Command Comments. The Army Signal Command stated that the existing TCCE-CA requirement is outdated. The Army Signal Command recommended that the total communications requirements of CINCUSCENTCOM be reevaluated.

Evaluation Response. Comments from the Joint Staff and the U.S. Central Command are responsive. We acknowledge that subsequent to issuing the evaluation draft report, the revised CJCS memorandum, "Forces for Combatant Commanders," reassigned responsibility for Joint Staff controlled communications equipment from the Joint Staff to the Commander in Chief, U.S. Atlantic Command. However, the effective date for the reassignment is October 1, 1998. In the interim, the Joint Staff retains the responsibility for oversight of Joint Staff controlled communications assets. If the Army does not want to support the TCCE-CA requirement, it should address the issue to the Joint Staff.

Finding C. Army Tactical Contingency Communications Equipment-Central Area Guidance

Army TCCE-CA assets were managed without formal Army guidance. The Army had not issued any directives or instructions delineating the Army's priorities and responsibilities regarding the TCCE-CA mission relative to the missions of the 11th Signal Brigade. As a result, there was no assurance that the Army would not use the TCCE-CA assets for Army specific missions at the expense of the joint mission.

Army Management of TCCE-CA

The Army maintained TCCE-CA assets both in the CENTCOM AOR and at the 11th Signal Brigade. The CENTCOM AOR-designated equipment was providing communications support to units in the theater. All other Army TCCE-CA assets were assigned to the 40th and the 86th Signal Battalions of the 11th Signal Brigade.

The 11th Signal Brigade managed the TCCE-CA assets as well as assets for Army missions near a 100-percent readiness to support the TCCE-CA mission. Specific serial numbered end items of equipment were not designated for TCCE-CA. Instead, equipment required in support of the TCCE-CA was segregated. When maintenance and repair of the equipment was required, other identical end items of equipment replaced the items being repaired.

Army Policies and Procedures for Managing TCCE-CA Assets

The Army's TCCE-CA assets were managed without formal Army guidance. The lack of formal guidance had not affected the equipment readiness; however, without guidance there was no assurance that the 11th Signal Brigade would continue to give priority to the TCCE-CA CINCUSCENTCOM mission. Other uses of TCCE-CA assets at the expense of the CINCUSCENTCOM mission could include Army unique missions, missions to unified commands other than CENTCOM, and training exercises that degrade the TCCE-CA units ability to deploy rapidly.

Use of TCCE-CA Outside the CENTCOM AOR. Approval of the CINCUSCENTCOM was required to use the TCCE-CA assets in any theater outside the CENTCOM AOR. However, the approval of the CINCUSCENTCOM was neither sought nor given for the use of TCCE-CA assets in support of Haiti. The Army deployed one major piece of TCCE-CA equipment to Haiti without the approval of CINCUSCENTCOM. The Army Signal Command and the 11th Signal Brigade acknowledged the error and asserted that a similar instance would not occur in the future.

Use of TCCE-CA for Training. The 11th Signal Brigade routinely trained with the TCCE-CA units in and around Fort Huachuca and Yuma, Arizona. The Army and the CINCUSCENTCOM did not view the unit proficiency training as a deployment, as in the Haiti case. As a result, prior concurrence was not requested from the CINCUSCENTCOM. Although CINCUSCENTCOM approved of the proficiency training as a means to maintain unit readiness to support the TCCE-CA mission, no written Army or local command policies defined under what conditions the TCCE-CA equipment could be used for deployments and training.

Air Force Policies and Procedures for Managing TCCE-CA Assets

The Air Force controlled the use of its TCCE-CA assets both for deployment and training through a memorandum of understanding and through instructions specific to the 281st CCG.

Memorandum of Understanding. The Air Force drafted a memorandum of understanding in October 1995, to define the responsibilities and limits regarding its TCCE-CA resources. The memorandum of understanding was signed by the Joint Staff J-6, the CENTCOM J-6, the Air Force Headquarters Staff, the National Guard Bureau, the Air Force Tactical Air Command⁴, the State of North Carolina, and the State of Georgia. The memorandum of understanding covered deployment policies and the training usage of TCCE-CA assets.

Local Instructions on the Use of TCCE-CA Assets. The commander of the 281st CCG promulgated numerous documents reinforcing the primacy of the TCCE-CA mission and placed restraints on the use of the equipment outside CINCUSCENTCOM control.

⁴ Since the drafting of the memorandum of understanding in 1995, the Tactical Air Command was redesignated the Air Combat Command. However, despite the name change, the memorandum was still binding.

Conclusion

There were no directives, instructions, or memoranda of understanding delineating how the 11th Signal Brigade should manage TCCE-CA assets. The Army units assigned the TCCE-CA mission were giving the mission a high priority. However, without codification of the CINCUSCENTCOM missions, the possibility existed that, in the future, the Army could use the TCCE-CA equipment at the expense of the joint mission and without the approval or knowledge by either the Joint Staff or CINCUSCENTCOM.

Recommendation, Management Comments, and Evaluation Response

C. We recommend that the Commander, U.S. Army Signal Command develop derivative documentation, either through directives, instructions, or memoranda of understanding, to manage the use of the Tactical Contingency Communications Equipment-Central Area assets. The directives, instructions, or memoranda of understanding should be written to ensure the full support of the Commander in Chief, U.S. Central Command's contingency plans in accordance with guidance from the Chairman of the Joint Chiefs of Staff.

Army Signal Command Comments. The Army Signal Command nonconcurred with the recommendation and stated that the Army cannot afford to dedicate specific assets for singular control. It further stated that the Army can better support communications needs by managing missions vice reserving assets for specific unified commanders.

Joint Staff and U.S. Central Command Comments. The Joint Staff and the CENTCOM J-6 both provided unsolicited comments on the recommendation. The Joint Staff stated that it will work with the Department of the Army and the Army Signal Command to develop the required guidance. The CENTCOM J-6 stated that the November 6 and 7, 1997, TCCE-CA Working Group meeting established an action item to CENTCOM to draft a memorandum of understanding with the Army relating to the management of TCCE-CA assets. A memorandum of understanding is the first step toward an agreement by all parties regarding the management and oversight of Army TCCE-CA assets.

Evaluation Response. The Joint Staff and CENTCOM comments are responsive. Comments from the Army Signal Command are not responsive. The TCCE-CA mission is assigned to units belonging to the Army Signal Command through CJCS Instructions 3110.10 and 6110.01. We recognize that those units possess assets and missions other than TCCE-CA support. In Recommendation C. we did not recommend the dedicating of specific assets for singular control. Rather, we recommended that the Army Signal Command

Finding C. Army Tactical Contingency Communications Equipment - Central Area Guidance

develop documentation to assist its subordinate commands in managing their assets in order to meet the TCCE-CA joint mission. We request that the Army Signal Command review comments from the Joint Staff and U.S. Central Command, reconsider its position, and provide additional comments in response to the final report.

Part II - Additional Information

Appendix A. Evaluation Process

Scope and Methodology

Data Gathering. We obtained and reviewed DoD policies and regulations, financial records, instructions, policies, and procedures pertaining to all aspects of the administration and maintenance of TCCE-CA from 1981 through 1997 and governing the use of TCCE-CA. We used standards identified in those documents as criteria for measuring the effectiveness of the TCCE-CA readiness to meet CINCUSCENTCOM requirements. We interviewed DoD managers who control and manage the TCCE-CA assets, appropriate Joint Staff, Service specific, and U.S. Central Command officials, as well as unit managers of the 11th Signal Brigade and the 281st CCG.

Use of Computer-Processed Data. We did not use computer-processed data or statistical sampling techniques for this evaluation.

Evaluation Type, Dates, and Standards. We performed this economy and efficiency evaluation from May through October 1997 in accordance with standards issued and implemented by the Inspector General, DoD. Accordingly, we included tests of management controls considered necessary.

Contacts During the Evaluation. We visited or contacted individuals and organizations within DoD. Further details are available upon request.

Management Control Program

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of Review of the Management Control Program. We reviewed the adequacy of the management controls over the units supporting TCCE-CA and the headquarters commands with oversight responsibility for the TCCE-CA units. Specifically, we reviewed management controls associated with TCCE-CA administration, maintenance, management guidance, modernization planning, readiness, and requirements determination. We reviewed management's self-evaluation applicable to those controls.

Adequacy of Management Controls. We identified the following material management control weaknesses for the TCCE-CA oversight function.

- Management controls for the oversight of TCCE-CA readiness were not adequate to ensure that a joint level staff maintained awareness of the readiness of the TCCE-CA units to accomplish the joint mission.
- Management controls for the oversight of the TCCE-CA requirements determination process were not adequate to ensure that equipment modernization plans would meet the CINCUSCENTCOM operational requirements.
- The Army management controls for TCCE-CA unit management were not adequate to ensure that the Army would delineate and prioritize the TCCE-CA mission relative to other missions of the 11th Signal Brigade.

Recommendations A. and B., if implemented, will ensure that the CJCS and CINCUSCENTCOM maintain TCCE-CA oversight. Recommendation C., if implemented, will ensure that the Army appropriately manages the TCCE-CA mission relative to other missions. A copy of the report will be provided to the senior officials responsible for management controls in the Joint Staff, the U.S. Central Command, and the Department of the Army.

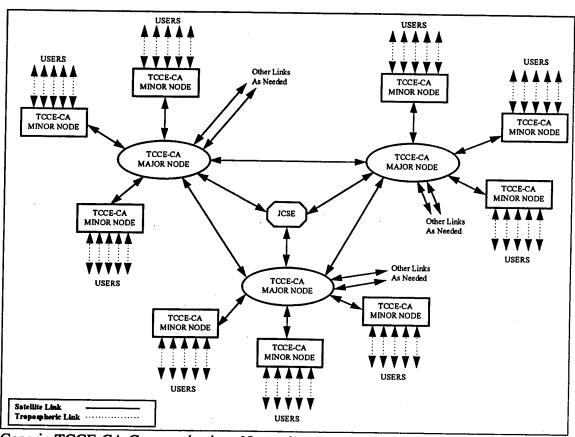
Adequacy of Management's Self-Evaluation. The Joint Staff, the CINCUSCENTCOM, and the Department of the Army did not identify TCCE-CA assets as an assessable unit, and therefore, did not identify or report the material management control weakness identified by the evaluation.

Summary of Prior Coverage

No prior coverage has been conducted on the TCCE-CA function.

Appendix B. Network of the Tactical Contingency Communications Equipment - Central Area

The TCCE-CA network architecture is designed around communications nodes. A node is a communications station that provides communications linking and switching equipment. The equipment contained in a specific node depends on the scope of communications support that a node provides. Links between nodes provides the communications network for the theater.



Generic TCCE-CA Communications Network

As shown above, TCCE-CA is comprised of three major and nine minor nodes. The minor nodes provide communications links between users at the corps level and support for echelons above the corps level, such as finance, personnel, and transportation functions. The major nodes provide connectivity between the Joint Communications Support Element (JCSE in the figure), the minor nodes, other major nodes, and other communications networks outside of the theater. The generic network shown is the basic TCCE-CA concept, although the exact links may vary slightly in different contingency plans due to specific requirements of the plans.

Appendix C. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology Director, Defense Logistics Studies Information Exchange Under Secretary of Defense (Comptroller)

Deputy Chief Financial Officer

Deputy Comptroller (Program/Budget)

Under Secretary of Defense for Personnel and Readiness Assistant Secretary of Defense for Reserve Affairs

Under Secretary of Defense for Policy

Assistant Secretary of Defense for Command, Control, Communications, and Intelligence

Assistant Secretary of Defense (Public Affairs)

Joint Staff

Director, Joint Staff
Director for Command, Control, Communications and Computer Systems
Director for Force Structure, Resources and Assessment

Department of the Army

Auditor General, Department of the Army Commander, United States Army Signal Command Commander, 11th Signal Brigade

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller) Auditor General, Department of the Navy Superintendent, Naval Postgraduate School

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller) Auditor General, Department of the Air Force Commander, 281 Combat Communications Group

Unified Commands

Commander in Chief, United States Atlantic Command Commander in Chief, United States Central Command Commander in Chief, United States European Command Commander in Chief, United States Pacific Command Commander in Chief, United States Southern Command

Appendix C. Report Distribution

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency
Chief, National Guard Bureau
Inspector General, National Guard Bureau
Director, Defense Information Systems Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
General Accounting Office
National Security and International Affairs Division
Technical Information Center

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

Senate Committee on Appropriations

Senate Subcommittee on Defense, Committee on Appropriations

Senate Committee on Armed Services

Senate Committee on Governmental Affairs

House Committee on Appropriations

House Subcommittee on National Security, Committee on Appropriations

House Committee on Government Reform and Oversight

House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform and Oversight

House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight

House Committee on National Security

Part III - Management Comments

Joint Staff Comments



THE JOINT STAFF WASHINGTON, DC

Reply ZIP Code: 20318-6000

J-6 97-04677 18 December 1997

MEMORANDUM FOR THE OFFICE OF THE INSPECTOR GENERAL,
DEPARTMENT OF DEFENSE

Subject: Evaluation Report on the Tactical Contingency Communications
Equipment - Central Area (project No. 7RB-9036)

- 1. We have reviewed subject report and provide the following comments;
- a. Finding A. Concur with comment. While formal guidance has not been published directing Army and Air Force units to submit TCCE-CA readiness reports, Joint Staff personnel receive readiness status information concerning Air Force TCCE-CA assets through monitoring of SORTS reports. The Joint Staff Reserve Component Advisor has almost daily contact with appropriate Air National Guard unit commanders and the National Guard Bureau regarding TCCE-CA readiness. Additionally, as the G-SORTS provides a distributed database, with access available to CINCs and subordinate commands, the data is also available for review on a recurring basis. The SORTS reports of the 11th Sig Bde do not provide direct visibility of Army TCCE-CA assets because the TCCE-CA equipment is not allocated to subordinate units with an exclusively TCCE-CA mission. Joint Staff will initiate changes in appropriate publications to require direct reporting of TCCE-CA readiness during the next review cycle with an estimated completion date of 1 November 1998.
- b. Finding B. Concur. USCINCCENT recently hosted a working group to plan the way ahead for the TCCE-CA modernization effort consistent with the needs of the evolving TCCE-CA mission in the CENTCOM theater. A draft mission need statement is being completed and USCENTCOM has directed the respective Service components to generate an acquisition plan with technical solutions and costing data no later than 1 March 1998.
- c. Finding C. Concur. Joint Staff/J6 CINC Operations Division will work with the Department of the Army and U.S. Army Signal Command to develop required guidance documents.

697-0007.	HARRY M. HIGHFILL Rear Admiral, USN Deputy Director for Command, Control Communications and Computer Systems				
•					
·					

U.S. Central Command Comments



UNITED STATES CENTRAL COMMAND 7115 SOUTH BOUNDARY BOULEVARD MACDILL AIR FORCE BASE, FLORIDA 33621-5101

CCJ6

MEMORANDUM FOR OFFICE OF THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Draft Evaluation Report on the Tactical Contingency Communications Equipment - Central Area (project No. 7RB-9036)

- 1. The following comments are provided regarding the draft report:
- a. Finding A. Concur. Readiness reporting of the TCCE-CA is important to USCENTCOM. Joint Staff guidance regarding readiness reporting may change as USACOM assumes a greater role to provide oversight of the TCCE-CA units. Readiness reporting should be made to USCENTCOM/CCJ6, either through USACOM guidance or Joint Staff guidance.
- b. Finding B. Concur. An overarching modernization plan for the TCCE-CA is required. Regarding recommendation B.1., more detailed technical guidance for TCCE-CA modernization plan, with periodic updates, is important to USCENTCOM. However, this may now need to be a USACOM initiative, with coordination and participation from Joint Staff and USCENTCOM. Regarding recommendation B.2., the CJCSI 3110.10, Joint Strategic Capabilities Plan, (JSCP) may not be the place to include the detailed TCCE-CA modernization plan. However, the JSCP may direct creation of a separate TCCE-CA modernization plan, that would be periodically updated and reviewed by Joint Staff for completion of milestones.
- c. Finding C. Concur. Regarding recommendation C., the TCCE-CA Working Group meeting held at USCENTCOM on 6-7 Nov 1997 established an action item for USCENTCOM to provide a draft MCU relating to the Army TCCE-CA assets. Which office prepares the draft memorandum of understanding is secondary to having one that has the agreement by all parties to it.
- My points of contact for this are Lt Col Butts, USAF, (813) 828-3807 and LTC Landrum, USA, (183) 828-8353.

h Amas Cullet Coc 316
Harry D. Raduege, Jr
Brigadier General, USAF
Director, Command and Control,
Communications and Computer
Systems

Department of the Army Comments



DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR OPERATIONS AND PLANS
400 ARMY PENTAGON
WASHINGTON DC 20310-0400

72 2 DEC 1997

DAMO-FDC

MEMORANDUM FOR Inspector General, Department of Defense (Auditing), ATTN:
Director, Readiness, and Logistics Support, 400 Army Navy
Drive, Arlington, VA 22202-2884

SUBJECT: Comments on the Draft of a Proposed Evaluation Report, Tactical Contingency Communications Equipment- Central Area (TCCE-CA)

- 1. This memorandum provides comment on the tentative findings of the Department of Defense Inspector General's evaluation into TCCE-CA. While the draft report indicates a thorough assessment of the current condition of the program, it appears that the primary evaluation objective to "determine the effectiveness of TCCE-CA in support of National Command Authorities, Chairman of the Joint Chiefs of Staff, and CINCs of unified commands" was not directly assessed. We contend that an assessment of program effectiveness must include a baseline evaluation of the requirement for the program. The TCCE-CA program, as it exists today, provides support only to CENTCOM. It is our assertion that the unique control established by TCCE-CA is no longer relevant in today's strategic environment. The sixteen-year-old requirements on which the TCCE-CA program are based should be re-validated with respect to the National Military Strategy in effect today.
- 2. Army signal force structure exists to meet Warfight support requirements. These requirements are resourced with units from both the Active and Reserve Components. All operational requirements short of war are supported by the warfighting structure. Dedication of signal assets to any one command limits the Army's ability to meet the mission requirements of the remaining commands as they arise. Currently, there are insufficient signal assets to set aside equipment and personnel against a single mission without significantly limiting the Army's ability to support the global operations tempo.
- 3. Even though the basic purpose of this correspondence is nonconcurrence with the TCCE-CA report in general, Finding B, Modernization Planning, deserves comment.
- a. Finding B states (in part): An overarching modernization plan did not exist for TCCE-CA. A plan did not exist because neither the Joint Staff J-6 nor the CENTCOM J-6 had developed a detailed modernization plan that the Army and the Air Force could use to plan, program, and budget for equipment upgrades. As a result, TCCE-CA units may not be optimally equipped to support the future communication needs of CINCUSCENTCOM.

③

Recycled Pap

DAMO-FDC

SUBJECT: Communications on the Draft of a Proposed Evaluation Report, Tactical Contingency Communications Equipment - Central Area (TCCE-CA)

- b. Discussion: Equipment modernization is a service responsibility. Service Modernization Plans are crafted to support Defense Planning System interrelationships. The National Military Strategy drives the Army Planning System, which ultimately results in the Army Modernization Plan. CINC communications support requirements are addressed at this macro level and not by designing a unique architecture and looking at the services to fund it. The CENTCOM communications plan, referenced in this report, requires equipment and technology that the Army is not pursuing in its modernization plan. These technologies do not efficiently satisfy Army requirements.
- 4. CENTCOM has significant signal requirements in their Area of Responsibility (AOR) that the Army must support. Currently, Active Component signal units are stationed forward in the CENTCOM AOR meeting part of this requirement. Additionally, permanent facilities are now established in the AOR that did not exist when the TCC-CA requirements were originally identified. As issue is whether critical and limited signal assets should be controlled by CENTCOM as opposed to USACOM, the force provider. TCCE-CA provides a significant advantage to CENTCOM in meeting their requirements to the detriment of other unified commands. CENTCOM's warfighting force structure requirement should be addressed through the Total Army Analysis process. Integration of CINC requirements into this disciplined, comprehensive process will ensure that the Army makes the necessary adjustments to meet its Title 10 responsibilities of providing a trained, equipped, and ready force. Recommend the DOD IG reevaluate the TCCE-CA program and assess its relevancy with respect to today's global strategic environment.
- 5. The DA ODCSOPS point of contact is LTC Richard Sirney, DSN 223-2259, commercial (703) 693-2259, sirnerp@hqda.army.mil.

RONALD E. ADAMS

Major General, GS

Assistant Deputy Chief of Staff for Operations and Plans,

Force Development

U.S. Army Signal Command Comments



DEPARTMENT OF THE ARMY UNITED STATES ARMY SIGNAL COMMAND FORT HUACHUCA, ARIZONA 65613-6060

AFSC-OP (525)

MEMORANDUM FOR OFFICE OF THE INSPECTOR GENERAL, DEPARTMENT OF DEFENSE, 400 ARMY NAVY DRIVE, ARLINGTON, VA 22202-2884

SUBJECT: Draft Evaluation Report on the Tactical Contingency Communications Equipment - Central Area (Project No.7RB-9036)

- 1. Reference memorandum, Inspector General, Department of Defense, 17 Nov 97, subject as above.
- 2. The original ROC justification and approval was based upon the lack of DCS assets and backbone to support any of the CENTCOM OPLANS.
- 3. Subsequent to the original approval of the ROC, the DCS infrastructure in SWA has improved significantly. Riyadh, Dhahran, Bahrain, PSAB, and Camp Doha, Kuwait presently are major/minor type nodes with significant modern DCS DII connectivity. Camp Doha, Kuwait and Qatar will also have significant DCS DII connectivity in the near future. The Army feels present DII connectivity changes the overall position on how the TCCE-CA assets may or should be used as they relate to major/minor node connectivity.
- 4. Nost of the present established locations with significant DCS DII connectivity can now perform the original Central Area needs and connectivity. The following comments are provided regarding the draft report:
- a. Finding A: Nonconcur—The mandate for joint reporting should only be required when a service asset is operational under joint control. The service assets required to support a CINC mission should be identified by the service.
- b. Finding B: Moted. Recognize there are no overarching modernization plan for the existing TCCE-CA. The existing TCCE-CA requirement is outdated. Recommend the total Central Area requirement be re-looked.
- c. Finding C: Nonconcur——In order to meet all existing requirements, the Army/ASC cannot afford to dedicate specific assets for singular control. The Army/ASC can better support the



AFSC-OP SUBJECT: Draft Evaluation Report on the Tactical Contingency Communications Equipment - Central Area (Project No.7RB-9036)

CINCs, Joint Staff, and Army specific requirements by managing by mission rather than reserving assets for specific CINCs.

5. Points of contact for this memorandum are CPT Rivers, DSN 879-6928, commercial (520)538-6928, and Mr. Curt Berg, DSN 879-8022, commercial (520)538-8022.

DANTEL R. JUDY COL, GS ACOFS, G3

2

Evaluation Team Members

The Readiness and Logistics Support Directorate, Office of the Assistant Inspector General for Auditing, DoD, produced this report. Personnel of the Office of the Inspector General, DoD, who contributed to the report are listed below.

Shelton R. Young
Raymond D. Kidd
Captain A.L. Lawson, U.S. Navy
Kathryn L. Palmer
Commander W.H. Kimball, U.S. Navy
Gary L. Queen
Robert M. Paluck
Mary M. Cleary